

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-005-60627

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.
NM 18856 RECEIVED
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
DEC 17 1979
8. FARM OR LEASE NAME
D. B. C.
Federal ARTESIA OFFICE
9. WELL NO.
1
10. FIELD AND POOL, OR WILDCAT
Wildcat
Undesignated Montoya
11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
D
Sec. 35, T-11-S, R-26-E
12. COUNTY OR PARISH
Chaves
13. STATE
New Mexico

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐ PLUG BACK ☐
b. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☐ MULTIPLE ZONE ☐
2. NAME OF OPERATOR
Sundance Oil Company
3. ADDRESS OF OPERATOR
Suite 510, 1776 Lincoln St., Denver, Colorado 80203
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
660' FNL & 660' FWL
At proposed prod. zone
660' FNL & 660' FWL
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
11 miles E-S-E of Roswell, New Mexico
15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) Unit
2087.10'; 660' Dr.
16. NO. OF ACRES IN LEASE
1240
17. NO. OF ACRES ASSIGNED
TO THIS WELL
40
18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.
None
19. PROPOSED DEPTH
6100'
20. ROTARY OR CABLE TOOLS
Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3605.6' GL
22. APPROX. DATE WORK WILL START*
December 20, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	AMOUNT OF CEMENT
11"	8 5/8"	24#	1400'+	40 sacks (circulated)
7 7/8"	4 1/2"	11.60#	6100'	850 sacks (1400')

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Mud Program: See Exhibit "A" attached.
BOP Equipment and Casing Testing: See Exhibit "B" attached.

- **NOTE** (1) A joint of conductor pipe will be set and cemented in place at approximately 30 feet.
(2) See attachments for surface use plan.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED James L. Bryant TITLE Consultant DATE 12-5-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 12-13-79

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-1
Supersedes O-128
Effective 10/65

All distances must be from the outer boundaries of the Section

Operator Sundance Oil Company		Lease Federal 35		Section 1	
Section D	Section 35	Township 11 South	Range 26 East	County Chaves	
Actual Location of Well: 660 feet from the North line and 660 feet from the West line					
Ground Elev. Elev 3605.6	Producing Formation Montoya		Pool WICOCAT Acres 40		

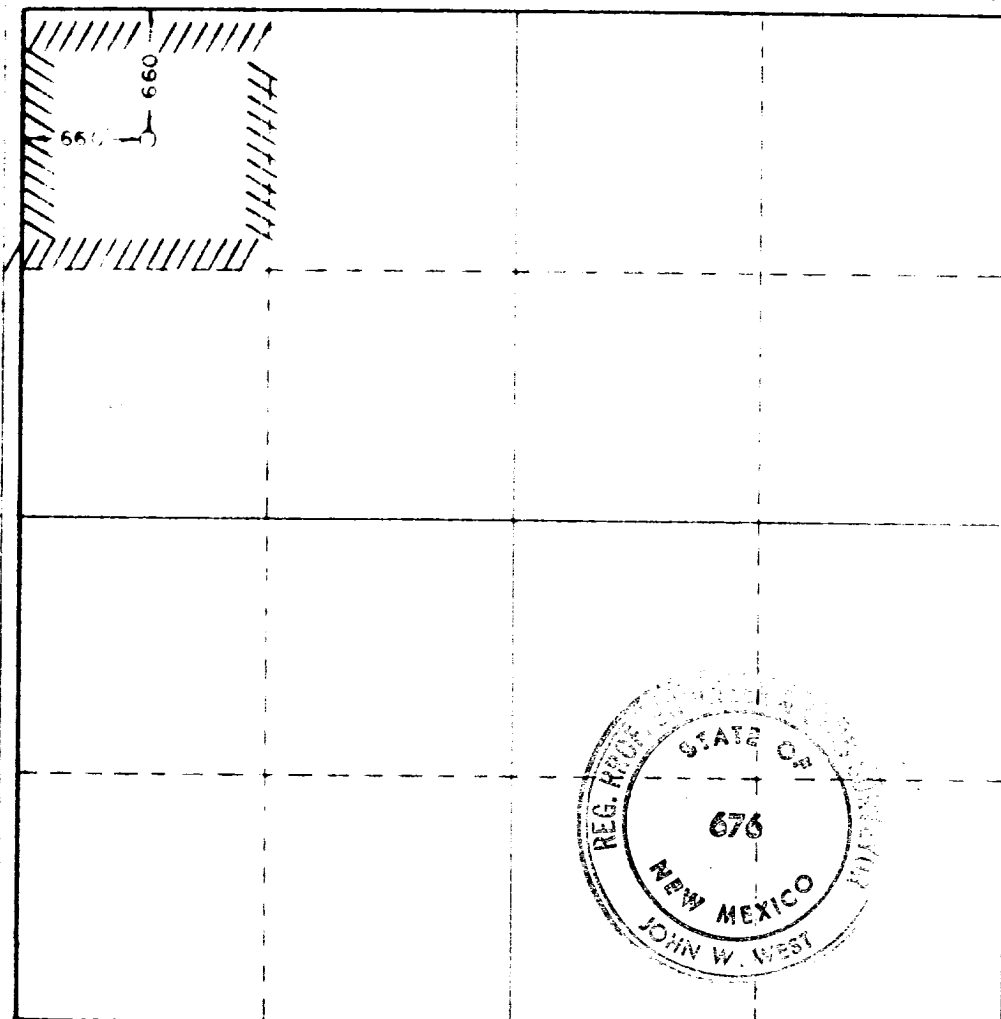
- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
 - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
 - If more than one lease of different ownership is dedicated to the well, have the interests of all leases been consolidated by communitization, unitization, force-pooling, etc?

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ARTESIA, OFFICE
- ☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated (if reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

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CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

James F. O'Briant
James F. O'Briant

Consultant

Sundance Oil Company

December 4th, 1979

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

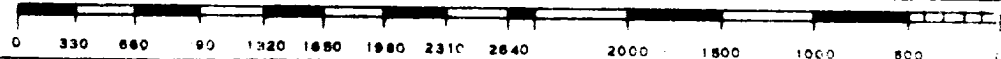
November 24, 1979

Plotted State of New Mexico
 by *John W. West*

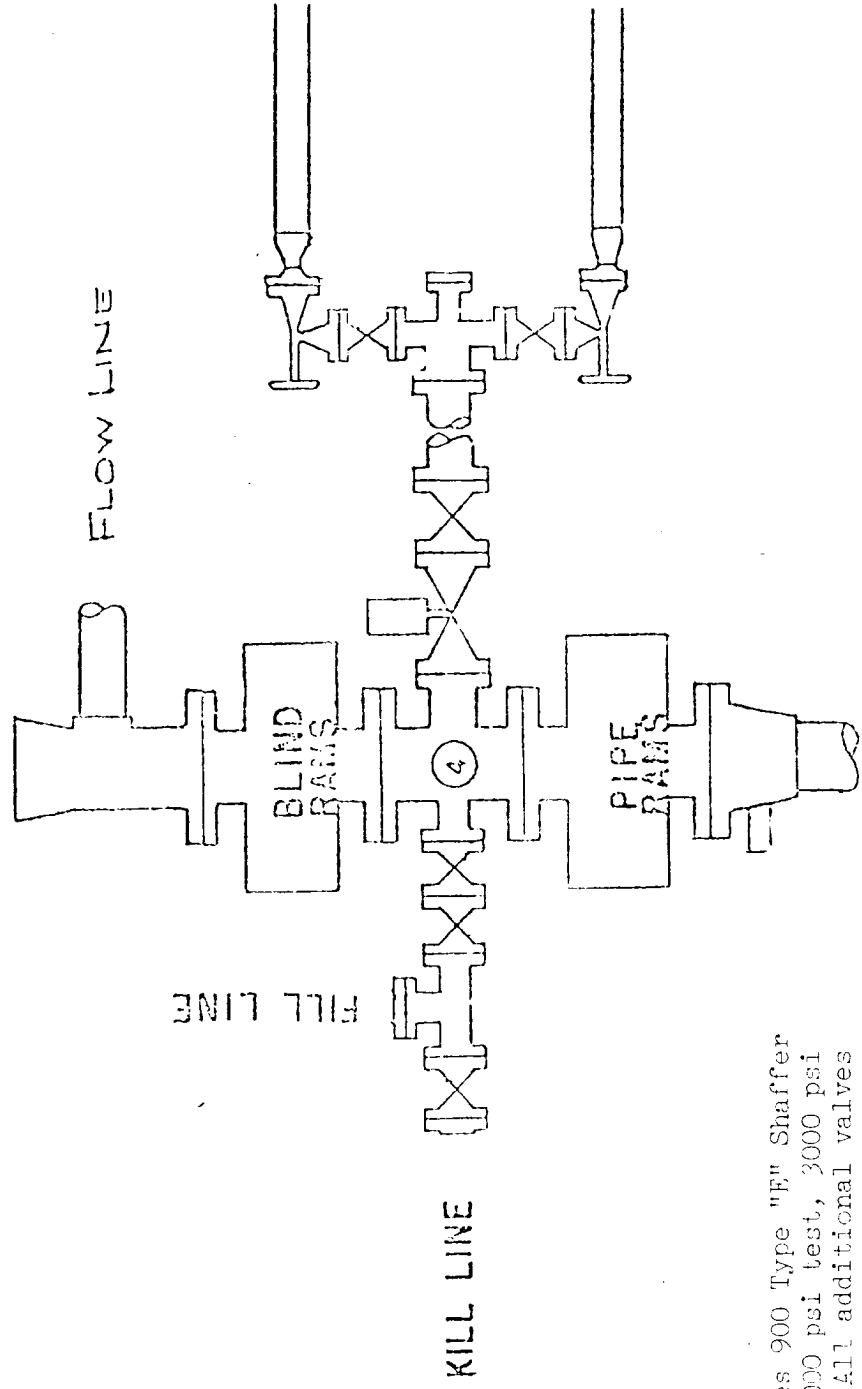
John W. West
John W. West
Ronald J. Eidson

676

3239



WEK DRILLING CO., INC. - Rig 1 & 3
BLOWOUT PREVENTER SPECIFICATION



BOP's are 10" Series 900 Type "E" Shaffer Double Hydraulic 6000 psi test, 3000 psi working pressure. All additional valves & connections are the same test & working pressures.



N.M.O.C.D. COPY
United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

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DEC 17 1979

O. C. C.
ARTESIA, OFFICE

December 13, 1979

Sundance Oil Company
Suite 510, 1776 Lincoln Street
Denver, Colorado 80203

Gentlemen:

SUNDANCE OIL COMPANY
Federal 35 No. 1
660 FNL 660 FWL Sec. 35 T.11S R.26E
Chaves County Lease No. NM 10896

Above Data Required on Well Sign

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 6,100 feet to test the Montoya is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Oil and Gas Operations on Federal Leases, dated July 1, 1978.
2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan and these Conditions of Approval including the attached General Requirements.
3. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should not be less than 8" x 5" in size and each page should identify the well.
4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).
5. Before drilling below the 8-5/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.
6. A kelly cock will be installed and maintained in operable condition.



7. After setting the 8-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.
8. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:
 - (1) A recording pit level indicator to determine pit volume gains and losses.
 - (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
 - (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.
9. Notify the Survey in sufficient time to witness the cementing of the 8-5/8" casing.
10. Cement behind the 8-5/8" casing must be circulated.
11. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

cc: (3) GEORGE H. STEWART

George H. Stewart
Acting District Engineer

EXHIBIT "A"

SURFACE HOLE 0' - 1450' KB

Spud with fresh water gel/lime spud mud. Maintain viscosity to insure good hole cleaning in 11" hole. Use paper if required for seepage.

Weight	8.6 - 9.5 ppg
Viscosity	35 - 40 sec./1000 cc
Fluid Loss	No Control
PH	-----

PRODUCTION HOLE 1400' to 6100' KB

Switch to working pits, mud up to control hole conditions and obtain samples. Maintain chlorides above 90,000 ppm. Use sodium chromate and lime for drill string protection. Use periodic hole sweeps if needed to clean hole. Shale shaker to be used while drilling this interval.

Weight	8.6 - 9.5 ppg
Viscosity	28+
API Filtrate	Control as needed
PH	10 - 11

EXHIBIT "B"

B.O.P. EQUIPMENT AND CASING TESTING

SURFACE CASING: 8 5/8" O.D.

- B.O.P.: One 10", 3000 psig Type E Shaffer Double.
- TESTING: 1. Before drilling shoe, pressure casing to 2000 psig for thirty minutes with rig pump; 50 psig pressure drop acceptable.
2. After drilling shoe and five feet of new hole, pressure test to 100 psig for 30 minutes with rig pump (fresh water).

Blowout preventor equipment will be hydraulically actuated with a four station, 3000 psig accumulator with control station at the rig steps. Accumulator is to have sufficient capacity to close all pressure operated devices at one time and maintain a 25% reserve.

After B.O.P. stack is assembled on 8 5/8" casing and prior to drilling Wolfcamp, a plug will be set in the casing head and the stack tested to rated working pressure.

All B.O.P. equipment shall be checked for proper working order on each trip. Choke manifold and lines should be flushed periodically with water. Chokes are to be checked on each tour by driller.

Blowout preventor drills are to be held not less than twice weekly by each drilling crew. All crew members are to be familiar with B.O.P. and choke manifold operations and their respective duties in the event of a kick. Drills to start upon drilling out from under 8 5/8" casing.

SUPPLEMENTAL DRILLING DATA

SUNDANCE OIL COMPANY

FEDERAL "35" NO. 1

660' FNL & 660' FWL, Sec. 35, T-11-S, R-26-E

CHAVES COUNTY, NEW MEXICO

This supplemental plan is submitted with the application to drill the above-described well in compliance with NTL-6 of the United States Department of the Interior.

1. The surface is composed of a loamy sand; Guadalupe in age.
2. Estimated top of primary geologic markers and potential oil or gas zones.

<u>FORMATION</u>	<u>ESTIMATED DEPTH</u>	<u>POTENTIAL PRODUCTION</u>
Penrose	480'	0
San Andres	900'	0
Glorieta	2,200'	---
Tubb	3,600'	---
Abo	4,400'	Gas
Wolfcamp	5,200'	Gas
Cisco	5,740'	Gas
Montoya	6,000'	Oil
Total Depth	6,100'	

Elevation: GL - 3,606'. KB - 3,616' (estimated).

3. Proposed casing program. See Form 9-331C and attachments.
4. Pressure control equipment: See Form 9-331C, Exhibit "B". Before drilling the Wolfcamp formation, the BOP and related control equipment shall be pressure tested to rated working pressures by an independent service company. The district office shall be notified in time to witness the tests.

Pipe rams shall be actuated at least once each 24 hours and the blind rams each time the drill pipe is out of the hole. Accumulators shall maintain a pressure capacity reserve at all times to provide for repeated operation of hydraulic preventors. Blowout prevention drills shall be conducted as necessary to insure that each drilling crew is properly trained to carry out emergency duties.

5. Mud program: See Form 9-331C, Exhibit "A".
6. A lower kelly cock is to be used.
7. Testing, coring and logging program:
 - (A) All significant shows of oil or gas will be drillstem tested if possible. Testing procedure will involve use of dual packers, jars and safety joint. Duration of test, shut-in times, etc. will be determined by company engineer in charge.
 - (B) No coring is anticipated.
 - (C) The following logs will be run:

1400' to TD: Compensated neutron - density, dual
laterlog, RXO
 - (D) Ten foot samples are to be caught from 600' KB to total depth.
 - (E) Ten foot drilling time is to be kept from 600' KB to total depth.
8. Pressures approximately equal to a 9.0#/gallon mud hydrostatic pressure are anticipated between 1400' KB and total depth. No abnormal temperatures or hydrogen sulfide are anticipated. Pressure control shall be achieved by the use of muds having a density of 9.0 to 9.5#/gallon. Any gas kicks encountered should be recognized and controlled by the use of the following accessory equipment:
 - (A) Choke manifold.
 - (B) Other equipment as needed.
9. Anticipated spud date is December 20, 1979. Drilling operations will require approximately 16 days; completion operations will require an additional one to two weeks.

SURFACE USE PLAN
FOR
DRILLING, COMPLETING AND PRODUCING OPERATIONS

SUNDANCE OIL COMPANY
WELL NO.1 FEDERAL "35"
660'FNL & 660'FWL SEC.35, T.11 S.,R.26 E.
CHAVES COUNTY, NEW MEXICO

LOCATED: 13 air miles southease of Roswell, New Mexico.

FEDERAL LEASE NUMBER: NM 10896

LEASE ISSUED: January 1, 1970, for ten years. If lease extension by drilling operations is planned, lease rental must be timely paid for next year.

RECORD LESSEE: Randall B. Johnston.

OPERATOR'S AUTHORITY: Designated operator by record lessee.

ACRES IN LEASE: 1240.

SURFACE OWNERSHIP: Federal.

GRAZING PERMITTEE: David J. Sorenson
P. O. Box 1453
Roswell, New Mexico 88201

POOL: Wildcat. Statewide rules.

EXHIBITS: A. General Road Map
B. Plat Showing Existing Wells and Roads
C. Drilling Rig Layout

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1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. Point "A" on the plat is on US-380, approximately 10 miles east of Roswell, where a paved road goes south to the Bottomless Lakes State Park. To reach the proposed well site from this point go south approximately 6.5 miles, staying on the high road in the east side of the park, to near the southeast corner of the park. Where the road is closest to the east park fence there is an unimproved ranch road going northeast. Exit the paved park road at this point, go through the wired-up fence gate and go northeast about 0.75 miles. The proposed well site is about 250 feet west of this point.

The well site can also be reached from the south by going east from Dexter, New Mexico, for 2 miles and then north for about 9 miles to the Bottomless Lakes State Park. This road is paved and intersects the paved park road in the south end of the park. At the intersection turn right and go east and north about 0.4 mile to the point described above where the unimproved ranch road takes off from the paved park road through the fence in a northeasterly direction. However, this road is limited to light traffic because the bridge over the Pecos River is narrow and has a load limit of 10,000 pounds.

- B. Exhibit "B" is a plat showing existing roads in the vicinity of the well site. These existing roads are color coded.
- C. The 0.75 mile of ranch road from the paved road to the well site will require up-grading. Because the nearest known caliche pit is some 17 miles distant, surfacing the road is not planned at the present time unless necessary to do so. Plans are to blade, water and compact this road which is believed sufficient for drilling operations. If the well is completed for production, the road will be further up-graded by surfacing as necessary for producing operations.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The new road will be 12 feet wide and approximately 150 feet long. The new road is labled and color coded red on Exhibit "B". The center line of the proposed new road, from the beginning to the well site, has been staked and flagged with the stakes being visible from any one to the next. This new road will not be surfaced for drilling operations unless necessary to do so.
- B. Surfacing Material: Surfacing material, if required, will be caliche, watered, compacted and graded.

- C. Maximum Grade: Three percent.
 - D. Turnouts: One may be required.
 - E. Drainage Design: Access road will be crowned with drainage to each side.
 - F. Culverts: None required.
 - G. Cuts and Fills: None necessary. Only clearing and minor levelling will be required.
 - H. Gates and Cattle Guards: One cattle guard will be required.
3. LOCATION OF EXISTING WELLS:
- A. Existing wells in the immediate area are shown on Exhibit "B".
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. This lease is undeveloped at the present time and there are no existing production facilities on the lease.
 - B. If the proposed well is productive, the tank battery and flow line will be located on the well pad and no additional surface disturbance will be necessary.
5. LOCATION AND TYPE OF WATER SUPPLY:
- A. It is not contemplated that a water well will be drilled. Water necessary for drilling will be purchased and hauled to the well site over existing and proposed roads shown on Exhibit "B".
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. There is a caliche pit on private land in the W $\frac{1}{2}$ sec. 26, T.10 S., R.27 E. which would require a haul of about 17 miles. There is also a pit on State land in the SW $\frac{1}{4}$ sec. 29, T.10 S., R.27 E. which would require a haul of about 15 miles. Caliche needed for surfacing the road and pad will be taken from either one or both of these pits.
7. METHODS OF HANDLING WASTE DISPOSAL:
- A. Drill cuttings will be disposed of in the drilling pits.

- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit "C".
- F. All trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "C" shows the relative location and dimensions of the well site, mud pits, reserve pit and trash pit and the location of major rig components. Surfacing of the well site is not planned for drilling operations unless necessary to do so. If the well is completed for production, surfacing of the area for producing operations will be accomplished as necessary.
- B. Only minor levelling of the well site will be required. No significant cut and fill will be necessary.
- C. The pad and pit area has been staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.

- B. Any unguarded pits containing fluids will be fenced until they are dry.
- C. After abandonment, all equipment, trash and junk will be removed and the location will be cleaned. Any special rehabilitation and/or special revegetation requirements of the surface management agency will be complied with and accomplished as expeditiously as possible.

11. OTHER INFORMATION:

- A. Topography: The land surface at the well site is relatively level. Land slope from the well site is to the south.
- B. Soil: The soil is a thin sandy loam underlain by gyp.
- C. Flora and Fauna: The vegetative cover is sparse and consists of mesquite, weeds and range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.
- D. Ponds and Streams: The Pecos River is a little more than 2 miles west of the proposed well site. The nearest lakes in Bottomless Lakes State Park are about 3/4 mile northwest and southwest of the well site.
- E. Residences and Other Structures: The nearest occupied dwelling is about one mile southwest of the well site. The nearest windmill is a little more than one mile east.
- F. Archaeological, Historical and Cultural Sites: None observed in the area.
- G. Land Use: Grazing and hunting in season.
- H. Surface Ownership: Federal.

12. OPERATOR'S REPRESENTATIVE:

Representative responsible for assuring compliance with the approved Surface Use Plan is:

Richard O. Dimmit
Sundance Oil Company
1776 Lincoln Street Suite 510
Denver, Colorado 80203
Office Phone: 303-861-4694
Home Phone: 303-841-4592

13. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions that presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Sundance Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date

12/5/79

James F. O'Briant
James F. O'Briant, Agent

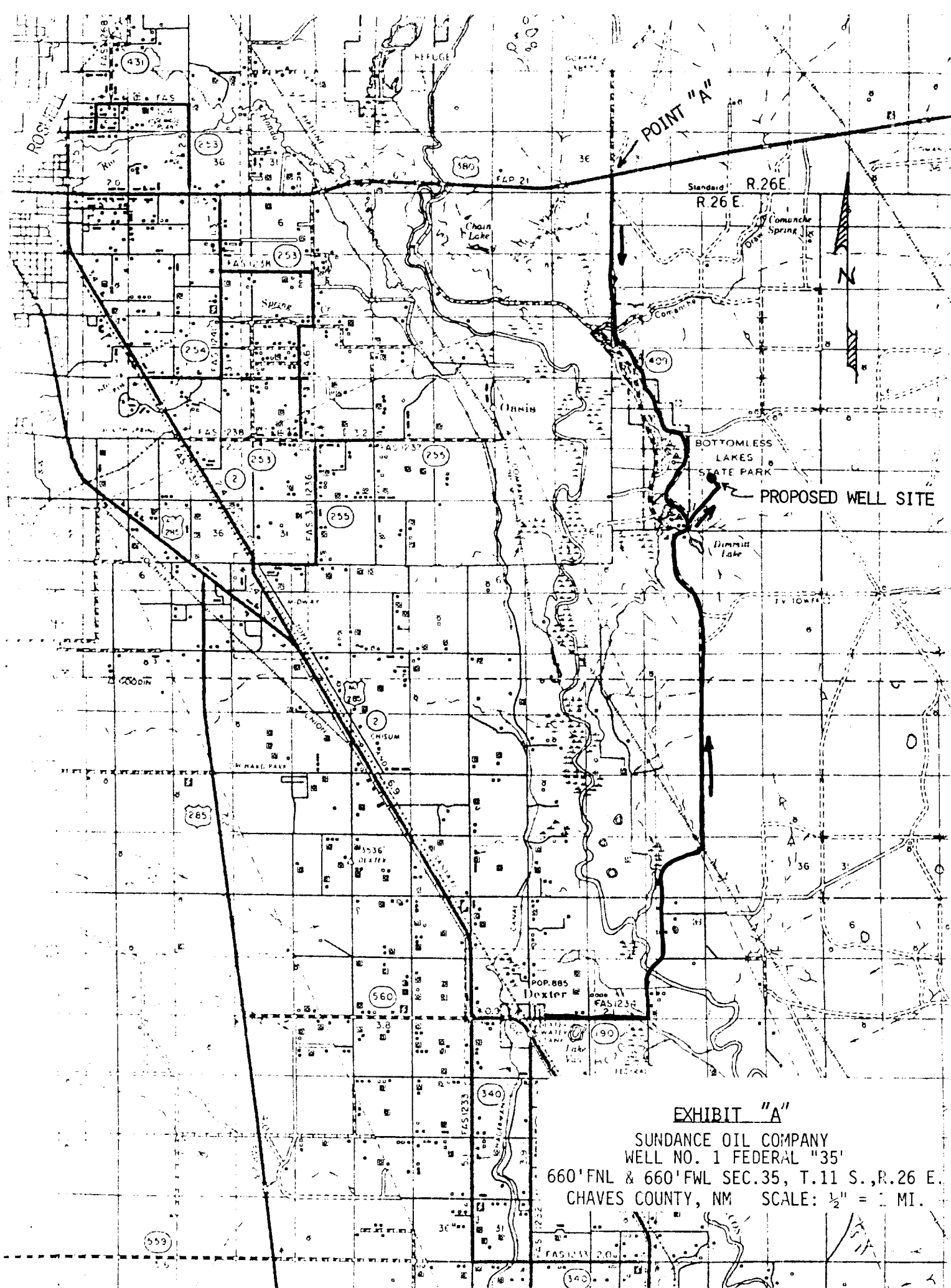
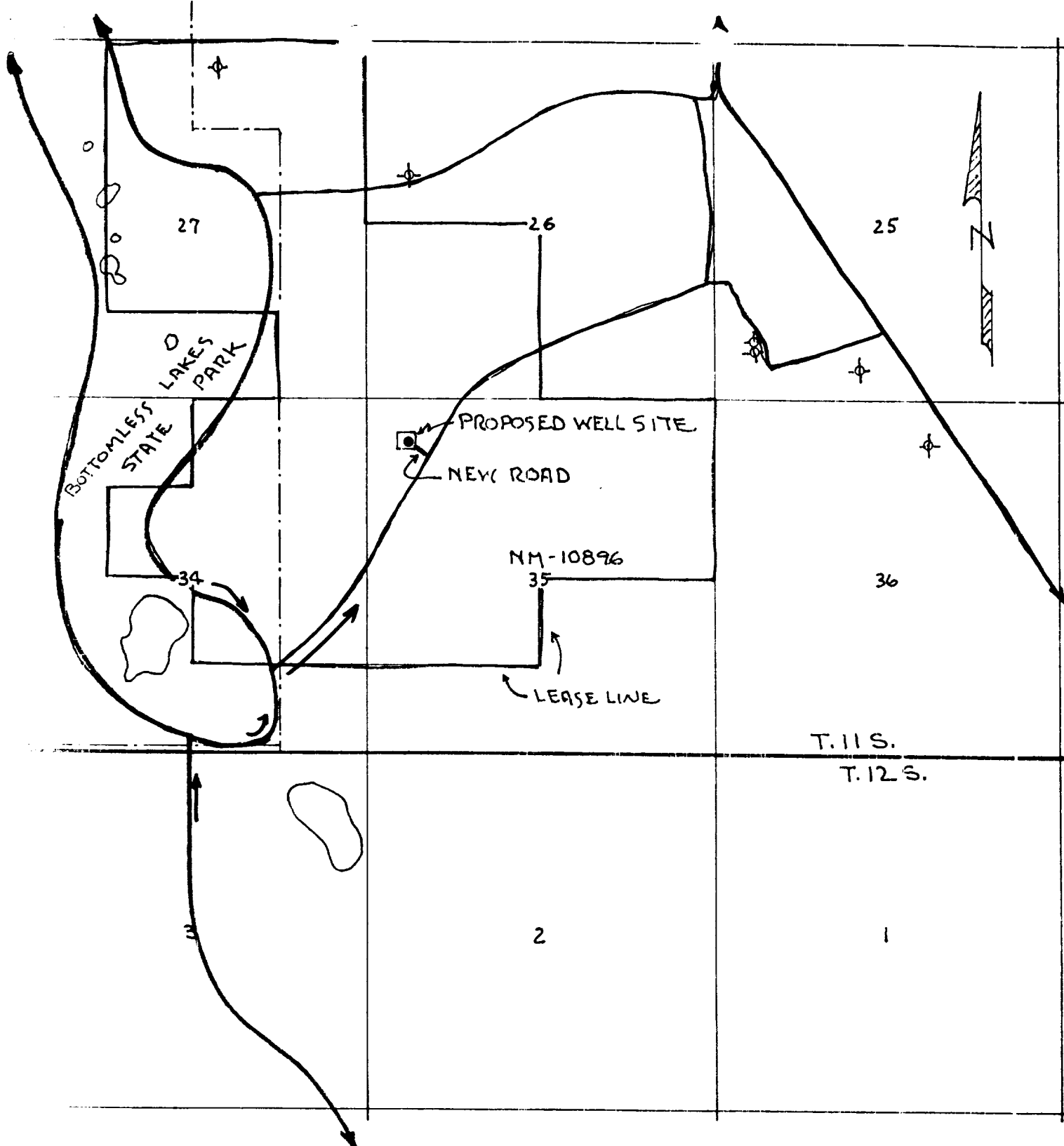


EXHIBIT "A"

SUNDANCE OIL COMPANY
WELL NO. 1 FEDERAL "35"
660' FNL & 660' FWL SEC. 35, T. 11 S., R. 26 E.
CHAVES COUNTY, NM SCALE: 1/2" = 1 MI.



LEGEND:

- Proposed Well Location
- ⊕ Plugged Well
- === Existing Paved Road
- === Existing Improved Road
- === Existing Unimproved Ranch Road
- Proposed New Road

EXHIBIT "B"

SUNDANCE OIL COMPANY
 WELL NO.1 FEDERAL "35"
 660'FNL & 660'FWL SEC.35, T.11 S., R.25 E.
 CHAVES COUNTY, NM SCALE: 1" = 2000'

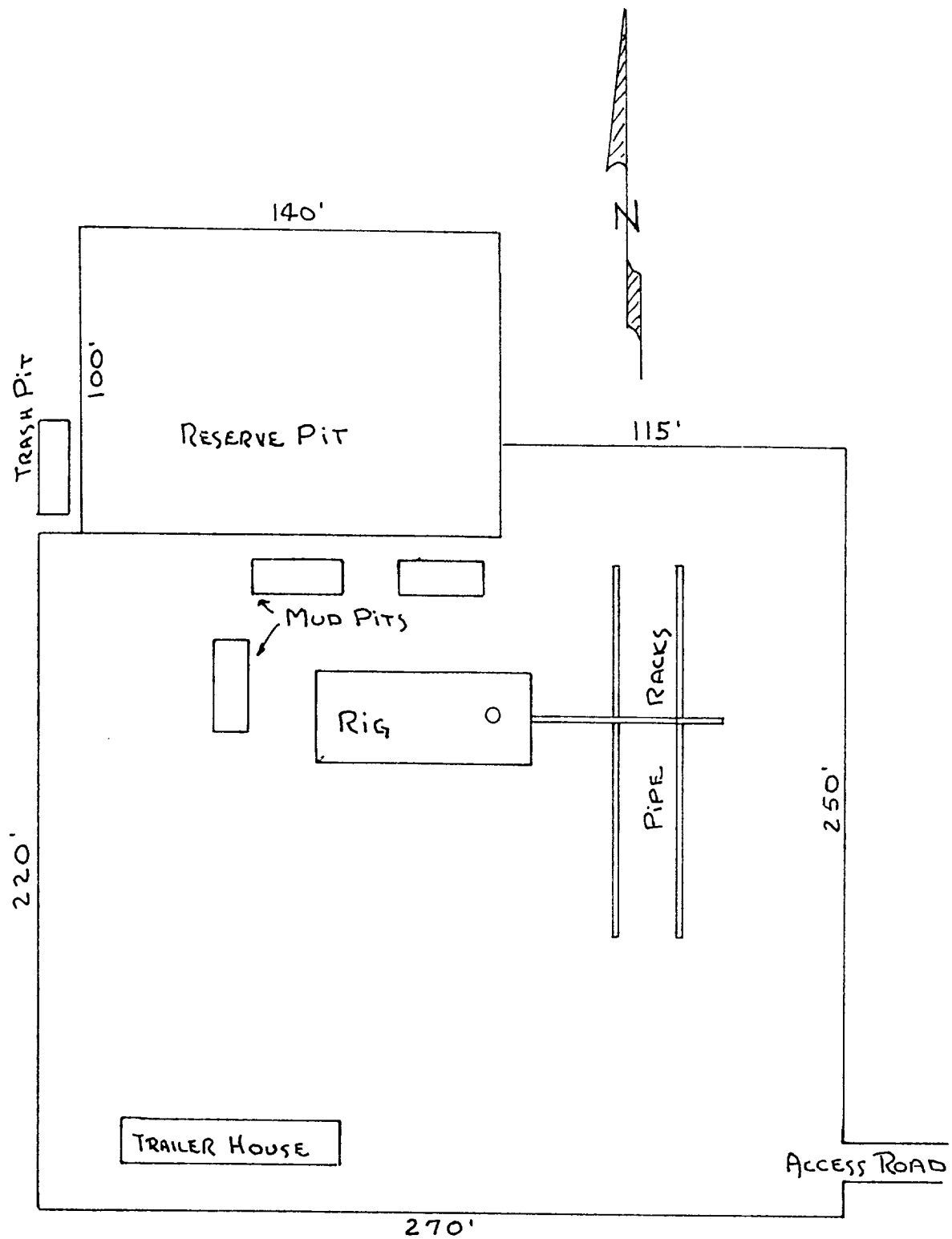


EXHIBIT "C"
DRILLING RIG LAYOUT
SCALE: 1" = 50'